

Stakeholder Meeting
Drainage Investigation and
Flooding Analysis
Whitwell Avenue Area
City Project 16-040
June 1, 2016



Agenda

- Existing Conditions and Challenges
- Proposed Study
- Public Observations and Input
- Next Steps

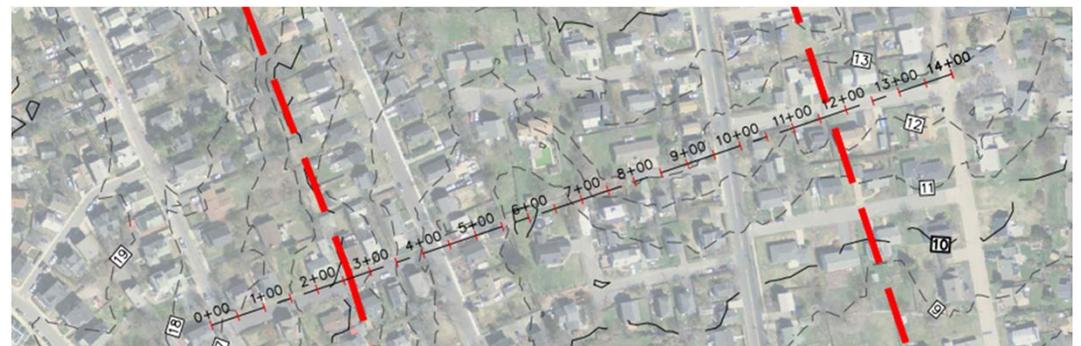
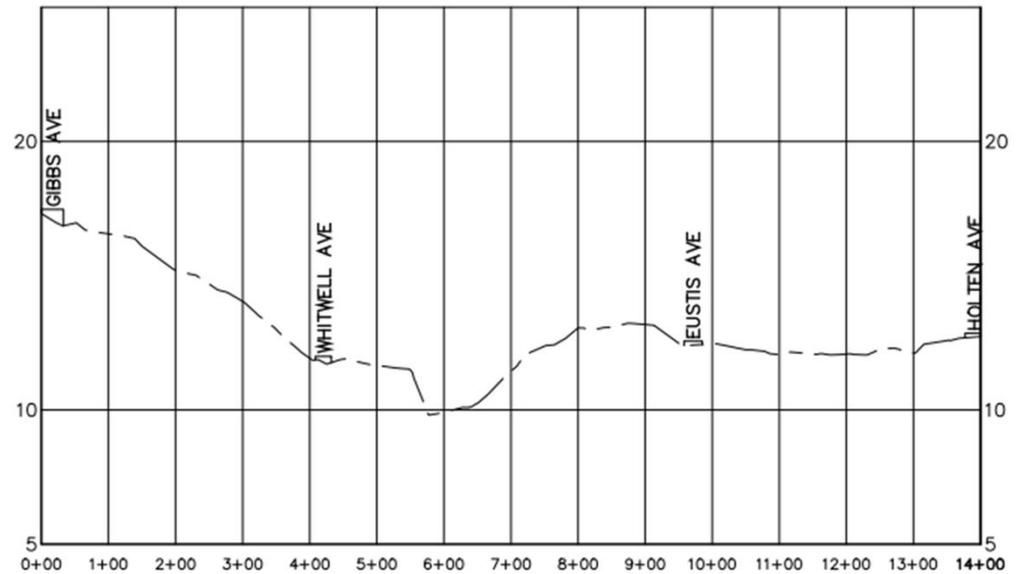
Existing Conditions and Challenges

- Large watershed draining to neighborhood
 - 262 acres
 - Almost completely built-out
- Poor soils
 - Very slow to infiltrate stormwater



Existing Conditions and Challenges

- Neighborhood is located in natural low-point
- Very flat Moat, difficult to drain
 - Moat bottom slopes at 0.07% to outlet
 - Typical storm drain pipe slope is 1% minimum



Existing Conditions and Challenges

- Substantial storm drain pipe network exists



Existing Conditions and Challenges

- Completed study in 2008 to assess alternatives to reduce flooding along the Moat only

Alternative	Flooding Improvement	2008 Costs
Excavate and widen Moat	0.3 feet for up to 10-year storm	\$2.5 million
Upgrade Memorial Blvd Culvert	No significant improvement near Ellery Rd	<\$1 million
Install new culverts at Old Beach Road	No significant improvement near Ellery Rd	\$3.7 million
Install new stormwater pump station	0.2 feet for up to 10-year storm	\$6.5 million

Proposed Study-Objectives

- Engineering study to reduce flooding along trunk storm sewer draining Whitwell Ave neighborhood
- Focused on area between Bliss and Ellery Road

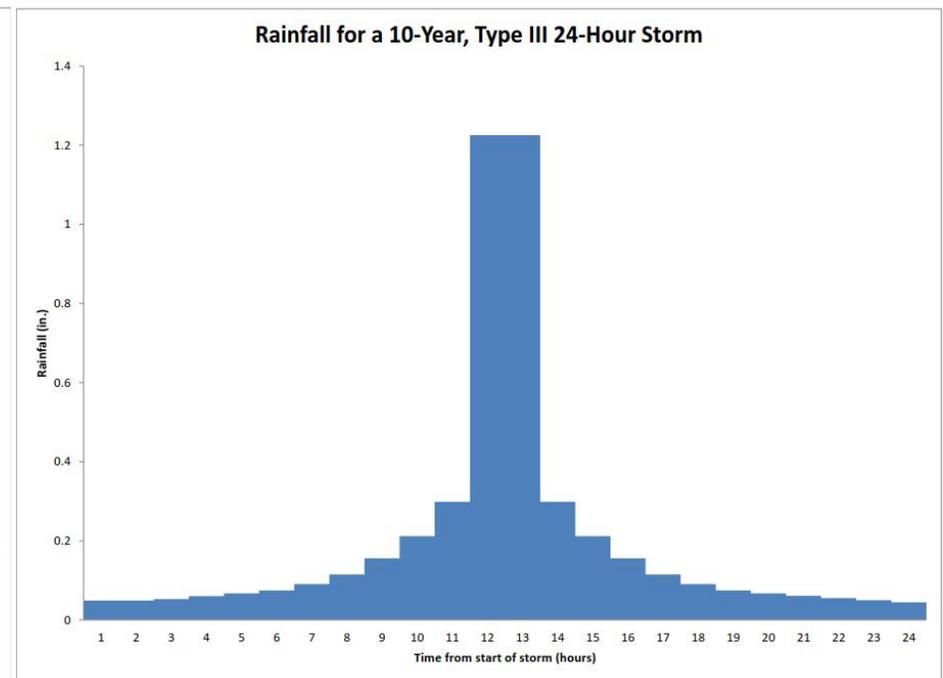
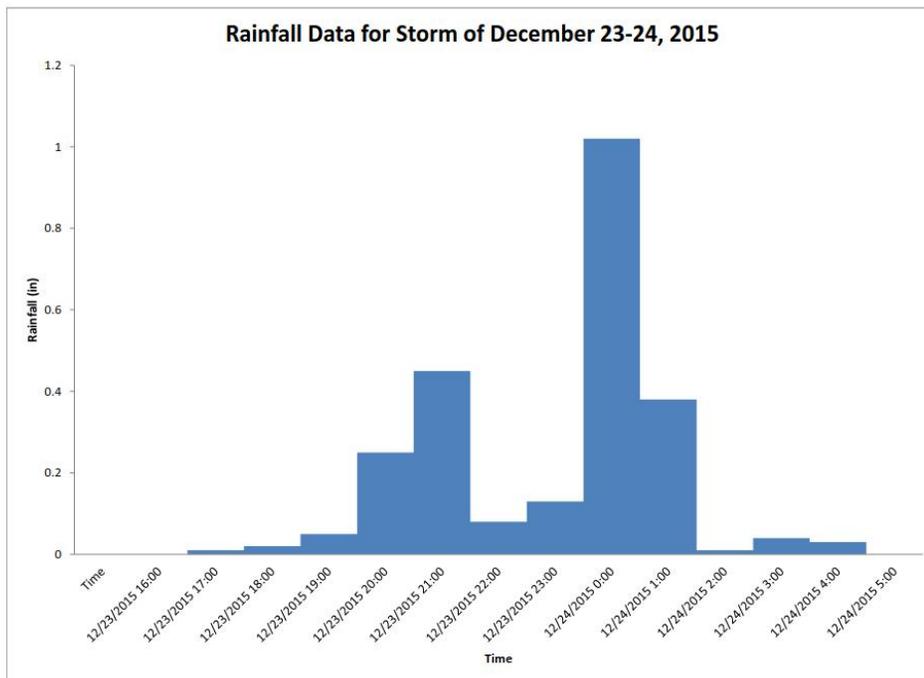


Proposed Study

- Develop alternatives to reduce flooding in study area
 - Evaluate pipe network improvements
 - Assess whether Moat impacts Whitwell Ave system
 - *If it does, develop new alternatives for the Moat*
 - Assess how future sea level rise impacts Whitwell Ave system
 - Ensure that improvements do not cause more flooding up- or downstream

Proposed Study

- Evaluate two storm scenarios
 - 12/24/15 storm and a “standard” 10-year frequency storm



Source: Natural Resources
Conservation Service

Proposed Study

- Calculate how alternatives would reduce flooding for those two events
 - Changes in depth and duration of flooding
- Recommend plan to reduce flooding
 - Include both short- and long-term alternatives
- Plan will not eliminate all flooding
 - Certain storms will still cause flooding

Public Observations and Input

- Want to better understand actual flooding issues



Next Steps

- Please send photos of flooding to
kbaker@fando.com
 - Include date and time of photo and where photo was taken(address or intersection)
 - We have already received photos sent to the City
- This data will be used to better develop hydraulic model of the drainage system
 - Need to see depth of flooding in photos
- Survey and site walk on June 9th
 - Start at Ellery and Eustis at 8 am
- Next public meeting to review recommendations in September, 2016